

State of Hawaii  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Division of Forestry and Wildlife  
Honolulu, Hawaii 96813

April 13, 2007

Chairperson and Members  
Board of Land and Natural Resources  
State of Hawaii  
Honolulu, Hawaii

Land Board Members:

SUBJECT: REQUEST FOR AN AMENDMENT OF CONTRACT NUMBER  
54004 WITH THE UNIVERSITY OF HAWAII FOR THE TESTING OF  
TIBOUCHINA BIOCONTROL TO EXTEND THE TIME OF PERFORMANCE  
TO 12/31/07.

This Board Submittal requests an amendment to the Hawaii Invasive Species Council (HISC) contract 54004 with the University of Hawaii, involving the quarantine testing of an insect for biocontrol of *Tibouchina herbacea*. The Board authorized the Chairperson to enter into contract for these services on May 13, 2005, subject to the certification of availability of funds and approval as to form by the Attorney General's Office.

**BACKGROUND:** The Department of Land and Natural Resources published a Request for Proposal (RFP) on March 1, 2005 on the State Procurement Office website for the FY06 HISC Program. The primary purpose of the HISC is to provide the institutional framework for leadership and coordination for a statewide invasive species prevention and control program.

HISC received an administrative budget of \$4 million for the initial year to provide support for the operations of the HISC and its cooperating partners, to develop a comprehensive state-wide invasive species prevention, control, research, application of new technology, and outreach program. Of that amount, 17 grants were selected for funding through the Research and Technology program requiring \$600,165 in HISC funding. These funds are matched with \$983,572 in non-state dollars.

The following HISC contract requires an amendment for a time extension (extended to 12/31/07):

<u>Contract 54003 – UH</u>	<u>Contract Recipient</u>	<u>Contract Amount</u>
Quarantine testing of an insect for Biocontrol of Tibouchina Herbacea	University of Hawaii PI: David Duffy, PhD	28,075.00

CONTRACT PROVISIONS:


This amendment for a time extension will be negotiated with the University of Hawaii to implement the project in accordance with their awarded proposal. The Division will submit the amendment for review and approval as to form by the Attorney General, and process the document for signature by the Chairperson.

RECOMMENDATION:

That the Board authorizes the Chairperson to negotiate and execute the amendment to the contract 54004 as outlined above subject to:

- 1.) Approval as to form by the Attorney General's Office.

Respectfully submitted

  
PAUL J. CONTRY, Administrator  
Division of Forestry and Wildlife

Attachment

APPROVED FOR SUBMITTAL:

  
PETER T. YOUNG, Chairperson  
Board of Land and Natural Resources

**STATE OF HAWAII**  
**AGREEMENT FOR GOODS OR SERVICES**  
**BASED UPON COMPETITIVE SEALED PROPOSALS**

This Agreement, executed on the respective dates of the signatures of the parties shown hereafter, is effective as of \_\_\_\_\_, 19\_\_\_\_, between the \_\_\_\_\_

DEPARTMENT OF LAND AND NATURAL RESOURCES

(Insert name of state department, agency, board, or commission)

State of Hawaii (hereinafter "STATE"), by its \_\_\_\_\_ Chairperson

(hereinafter "DIRECTOR"), and \_\_\_\_\_ University of Hawaii

(hereinafter "CONTRACTOR"), a \_\_\_\_\_ state agency

(Insert "corporation," "partnership," "joint venture," "sole proprietorship," or other legal form of the Contractor)

under the laws of the State of \_\_\_\_\_ Hawaii, whose business address and taxpayer identification number are as follows: \_\_\_\_\_ Office of Research Services

\_\_\_\_\_ Sakamaki D200, 2530 Dole St., Honolulu, Hawaii 96822; \_\_\_\_\_ 99-6000354

**RECITALS**

A. The STATE is in need of the goods or services, or both, described in this Agreement and its attachments.

B. The STATE has issued a request for competitive sealed proposals, and has received and reviewed proposals submitted in response to the request.

C. The solicitation for proposals and the selection of the CONTRACTOR were made in accordance with section 103D-303, Hawaii Revised Statutes ("HRS"), Hawaii Administrative Rules, Title 3, Department of Accounting and General Services, Subtitle 11 (hereinafter "Procurement Rules"), sections 3-122-41 through 3-122-60, and applicable procedures established by the appropriate Chief Procurement Officer ("CPO").

D. The CONTRACTOR has been identified as the responsible and responsive offeror whose proposal is the most advantageous for the STATE, taking into consideration price and the evaluation factors set forth in the request.

E. The STATE desires to retain and engage the CONTRACTOR to provide the goods or services, or both, as the case may be, and the CONTRACTOR is agreeable to providing said goods or services, or both.

F. Money is available to fund this Agreement pursuant to:

(1) \_\_\_\_\_ G-05-042-522 and S-05-314-522

(Identify state sources)

or (2) \_\_\_\_\_

(Identify federal sources)

or both, in the following amounts:

State \$ 28,075

Federal \$

G. Pursuant to HRS 171-6, the STATE is  
(legal authority to enter into agreement)  
authorized to enter into this Agreement.

NOW, THEREFORE, in consideration of the promises contained in this Agreement, the STATE and the CONTRACTOR agree as follows.

1. Scope of Performances. The CONTRACTOR shall, in a proper and satisfactory manner as determined by the STATE, provide all the goods or services, or both, set forth in the request for competitive sealed proposals number <sup>HISC RT 002</sup> ("Request"), and the CONTRACTOR's accepted proposal ("Proposal"), both of which, even if not physically attached to this Agreement, are hereby made a part this Agreement.

2. Compensation. The CONTRACTOR shall be compensated for goods supplied or services performed, or both, under this Agreement in a total amount not to exceed <sup>Twenty-eight thousand</sup> ~~seventy-five~~ DOLLARS (\$ 28,075), including taxes, at the time and in the manner set forth in the Request and CONTRACTOR's proposal.

3. Bonds. The CONTRACTOR is not required to provide a (performance) (payment) (performance and payment) bond in the amount of DOLLARS (\$ ).

4. Standards of Conduct Declaration. The Standards of Conduct Declaration of the CONTRACTOR, is attached and is made a part of this Agreement.

5. Other Terms and Conditions. The General Conditions and any Special Conditions are attached hereto and made a part of this Agreement. In the event of a conflict between the General Conditions and the Special Conditions, the Special Conditions shall control. In the event of a conflict among the documents, the order of precedence shall be as follows: (1) Agreement, including all attachments and addenda; (2) Request, including all attachments and addenda; and (3) Proposal.

6. Liquidated Damages. Liquidated damages shall be assessed in the amount of <sup>zero</sup> DOLLARS (\$ 0) per day, in accordance with the terms of paragraph 9 of the General Conditions.

7. Notices. Any written notice required to be given by any party to this Agreement shall be (a) delivered personally, or (b) sent by United States first class mail, postage prepaid. Notice required to be given to the Director shall be sent to the Director's office in

Honolulu, Hawaii. Notice to the agency procurement officer shall be sent to: Mark Defley,  
Plan Implementation Manager, Hawaii Invasive Species Council, DLNR, DOPAW,  
1151 Punchbowl St. Rm. 325, Honolulu, HI 96813 (808) 587-0164 Notice to the CONTRACTOR at the  
CONTRACTOR's address as indicated in this Agreement. A notice shall be deemed to have  
been received three (3) days after mailing or at the time of actual receipt, whichever is earlier.  
The CONTRACTOR is responsible for notifying the STATE in writing of any change of  
address.

IN VIEW OF THE ABOVE, the parties execute this Agreement by their  
signatures, on the dates below, to be effective as of the date first above written.

STATE

By 

for Print Name PETER T. YOUNG

Title Chairperson  
Department of Land and Natural  
Resources

Date \_\_\_\_\_

CONTRACTOR

By 

Print Name Christopher Helm

Title Interim Director \*  
University of Hawaii  
Office of Research Services

Date 10-04-05

APPROVED AS TO FORM:

  
Deputy Attorney General

\*Evidence of authority of the CONTRACTOR's representative to sign this Agreement for the  
CONTRACTOR must be attached.

# CONTRACTOR'S ACKNOWLEDGMENT

State of Hawaii )  
 ) SS.  
City and County of Honolulu

On this 4th day of October, <sup>2005</sup>~~19~~, before me personally appeared Christopher Helm, to me personally known, who being by me duly sworn, did say that he/~~she~~ is the Interim Director of University of Hawaii Office of Research Services, the CONTRACTOR named in the foregoing instrument, and that he/~~she~~ is authorized to sign said instrument on behalf of the CONTRACTOR, and acknowledges that he/~~she~~ executed said instrument as the free act and deed of the CONTRACTOR.



Notary Public, State of Hawaii  
My commission expires: 06/02/2006

## DIRECTOR'S CERTIFICATE OF EXEMPTION FROM CIVIL SERVICE

I certify that the services to be provided under this Agreement by the CONTRACTOR may be performed concurrently with the CONTRACTOR's private business or profession or other private employment, and that it is impracticable to ascertain or anticipate the portion of time to be devoted to the service of the STATE. Pursuant to section 76-16, HRS, the services are exempt from the state civil service.

\_\_\_\_\_  
(signature) Date \_\_\_\_\_  
Print Name \_\_\_\_\_  
Title \_\_\_\_\_  
State of Hawaii

## CERTIFICATE OF EXEMPTION FROM CIVIL SERVICE

1. By Heads of Departments or Agencies as Delegated by the Director of Human Resources Development <sup>1</sup>.

Pursuant to a delegation of the authority by the Director of Human Resources Development, I certify that the services to be provided under this Contract, and the person(s) providing the services under this Contract are exempt from the civil service, pursuant to §76-16, Hawaii Revised Statutes (HRS).

\_\_\_\_\_  
(Signature)

PETER T. YOUNG

\_\_\_\_\_  
(Print Name)

Chairperson, Department of Land and Natural Resources

\_\_\_\_\_  
(Print Title)

\_\_\_\_\_  
Date

<sup>1</sup>This part of the form may be used by all department heads and others to whom the Director of Human Resources Development (DHRD) has delegated authority to certify §76-16, HRS, civil service exemptions. The specific paragraph(s) of §76-16, HRS, upon which an exemption is based should be noted in the contract file. NOTE: Authority to certify exemptions under §§76-16(2), 76-16(12), and 76-16(15), HRS, has not been delegated; only the Director of DHRD may certify §§76-16(2), 76-16(12), and 76-16(15) exemptions.

2. By the Director of Human Resources Development, State of Hawaii.

I certify that the services to be provided under this Contract, and the person(s) providing the services under this Contract are exempt from the civil service, pursuant to §76-16, Hawaii Revised Statutes (HRS).

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(Print Title, if designee of the Director of DHRD)

\_\_\_\_\_  
Date

## CONTRACTOR'S STANDARDS OF CONDUCT DECLARATION

For the purposes of this declaration:

"Agency" means and includes the State, the legislature and its committees, all executive departments, boards, commissions, committees, bureaus, offices; and all independent commissions and other establishments of the state government but excluding the courts.

"Controlling interest" means an interest in a business or other undertaking which is sufficient in fact to control, whether the interest is greater or less than fifty per cent (50%).

"Employee" means any nominated, appointed, or elected officer or employee of the State, including members of boards, commissions, and committees, and employees under contract to the State or of the constitutional convention, but excluding legislators, delegates to the constitutional convention, justices, and judges. (Section 84-3, HRS).

University of Hawaii

On behalf of Office of Research Services, CONTRACTOR, the undersigned does declare as follows:

1. CONTRACTOR ☐ is\* ☒ is not a legislator or an employee or a business in which a legislator or an employee has a controlling interest. (Section 84-15(a), HRS).
2. CONTRACTOR has not been represented or assisted personally in the matter by an individual who has been an employee of the agency awarding this Contract within the preceding two years and who participated while so employed in the matter with which the Contract is directly concerned. (Section 84-15(b), HRS).
3. CONTRACTOR has not been assisted or represented by a legislator or employee for a fee or other compensation to obtain this Contract and will not be assisted or represented by a legislator or employee for a fee or other compensation in the performance of this Contract, if the legislator or employee had been involved in the development or award of the Contract. (Section 84-14 (d), HRS).
4. CONTRACTOR has not been represented on matters related to this Contract, for a fee or other consideration by an individual who, within the past twelve (12) months, has been an agency employee, or in the case of the Legislature, a legislator, and participated while an

\* Reminder to agency: If the "is" block is checked and if the Contract involves goods or services of a value in excess of \$10,000, the Contract must be awarded by competitive sealed bidding under section 103D-302, HRS, or a competitive sealed proposal under section 103D-303, HRS. Otherwise, the agency may not award the Contract unless it posts a notice of its intent to award it and files a copy of the notice with the State Ethics Commission. (Section 84-15(a), HRS).



employee or legislator on matters related to this Contract. (Sections 84-18(b) and (c), HRS).

CONTRACTOR understands that the Contract to which this document is attached is voidable on behalf of the STATE if this Contract was entered into in violation of any provision of chapter 84, Hawaii Revised Statutes, commonly referred to as the Code of Ethics, including the provisions which are the source of the declarations above. Additionally, any fee, compensation, gift, or profit received by any person as a result of a violation of the Code of Ethics may be recovered by the STATE.

DATED: Honolulu, Hawaii, \_\_\_\_\_.

**CONTRACTOR**

By \_\_\_\_\_  
(signature)

Print Name KEVIN HANAOKA

Print Title Interim Director

Name of Contractor University of Hawaii  
Office of Research Services

Date \_\_\_\_\_

## SCOPE OF SERVICES

The Contractor shall perform and provide in a satisfactory and proper manner for and as determined by the Department of Land and Natural Resources, Division of Forestry and Wildlife, for a period of twenty-two months commencing from the effective date on page 1 of this Agreement, all in strict accordance with the terms and conditions of this agreement, the following:

- 1) Test the host specificity of *Syphraea uberabensis* for the biological control of *Tibouchina herbacea* to ensure that it poses minimal risk to other plants in Hawaii.
- 2) Carefully screen *Syphraea uberabensis* to eliminate parasitic and pathogenic hitch-hikers from Brazil.
- 3) Evaluate developmental host range by exposing first and third instar larvae to non-target plants and *Tibouchina herbacea* controls in no-choice (starvation) tests, and score insect survival and damage to plants.
- 4) Test adult preference for feeding and egg-laying under choice (*Tibouchina herbacea* present) and no-choice (*Tibouchina herbacea* absent) situations.
- 5) Replicate all tests a minimum of four times.
- 6) Summarize data from quarantine tests and combine it with results of biological studies completed in Brazil in a petition for release.
- 7) Incorporate data on the host specificity of *Syphraea uberabensis* into the petition for release.
- 8) Submit a formal petition for release to the Hawaii Department of Agriculture and USDA-APHIS within one month of completion of tests in quarantine.
- 9) Submit host specificity and other biological data for publication in a peer-reviewed journal such as "Biological Control."
- 10) Deliver written progress reports on or before January 1, 2006, July 1 and January 1, 2007, either electronically or in hard copy. The reports must document progress in the nine tasks listed above.
- 11) Deliver a final written report upon completion of the project, either electronically or in hard copy. The report must document completion of the ten tasks listed above.

**TIME OF PERFORMANCE**

The time of performance is twenty-two (22) months, commencing on the effective date on page 1 of this Agreement.

Schedule of Activities:

October 2005: First shipment of Syphraea from Brazil.

October 2005-March 2006: Increase colony size.

January 2006: Hire technician.

January-February 2006: Inventory test plants, acquire additional plants as needed.

January-May 2006: Additional shipments of Syphraea and pathogen screening.

February-October 2006: Larval feeding tests.

April-November 2006: Adult feeding and oviposition tests.

February-July 2007: Write petition.

## COMPENSATION AND PAYMENT SCHEDULE

1) Scope of Payment: In full consideration of the services to be performed under this Contract, the STATE agrees to pay the CONTRACTOR a total sum not to exceed TWENTY-EIGHT THOUSAND SEVENTY-FIVE DOLLARS (\$28,075).

2) Advance Payment: Upon application by the CONTRACTOR, the STATE will make an advance payment upon presentation of an invoice in the amount of FOURTEEN THOUSAND THIRTY-EIGHT DOLLARS (\$14,038).

3) Progress Payments: Upon completion and acceptance of each and any of the first nine tasks in the Scope of Services (Attachment 1), and upon application by the CONTRACTOR, the STATE will make progress payments upon presentation of invoices for documented allowable reimbursable expenses, the total sum of which is not to exceed ELEVEN THOUSAND TWO HUNDRED TWENTY-NINE DOLLARS (\$11,229). Payment of a progress payment shall not be construed as an absolute acceptance of the work done up to the time of the payments, but the entire work is subject to acceptance at the time the CONTRACTOR advises the STATE that the work is completed.

4) Retainage Payment: A retainage payment of TWO THOUSAND EIGHT HUNDRED EIGHT DOLLARS (\$2,808) of the total payment shall be withheld by the STATE until the CONTRACTOR successfully complies with all terms of this agreement.

5) Initiating work: All work completed by the CONTRACTOR prior to the receipt of a fully-executed copy of this CONTRACT shall be at the CONTRACTOR's own volition, risk, and expense, including work performed during the period of any deliberations by the Board or Department of Land and Natural Resources in anticipation of a contract; provided, however, that if funding applicable to such work becomes available and is appropriated, the CONTRACTOR may be paid for such work even if performed prior to such approval.

6) Performance delays: The CONTRACTOR shall not be allowed additional compensation in the event of delays in performance.

## SPECIAL CONDITIONS

Key Personnel are:

David Duffy, Principal Investigator  
Unit Leader and Professor  
Pacific Cooperative Studies Unit (PCSU)  
Department of Botany  
University of Hawaii at Manoa  
3190 Maile Way, St. John 409  
Honolulu, Hawaii 96822

Tracy Johnson, Co-investigator  
Hawaii Volcanoes National Park Quarantine Facility  
Institute of Pacific Islands Forestry  
USDA Forest Service, Pacific Southwest Research Station  
P.O. Box 236  
Volcano, Hawaii 96785  
Ph: 808-967-7122  
Fax: 808-967-7158  
E-mail: tracyjohnson@fs.fed.us

The CONTRACTOR shall be responsible for obtaining in a timely fashion any and all permits required to fulfill the terms of this Contract.

## SPECIAL CONDITIONS

1. For purposes of this Contract, paragraph 4 on page 2 of the Contract, "Standards of Conduct Declaration" together with the attached Standards of Conduct Declaration form are hereby deleted and the parties agree that paragraph 4 of the Contract and its attached form are not operative.
2. For purposes of this Contract to which this "Special Conditions" is attached, the following General Conditions are deleted and have no operative effect as between the parties:
  - a. Paragraph 2.e.
  - b. Paragraph 7.
  - c. Paragraph 9.
  - d. Paragraph 17.d.
3. Delete General Conditions 26. Ownership Rights and Copyright in its entirety and replace with the following language:

26. Ownership Rights and Copyright. If the CONTRACTOR, or an employee or employees of the CONTRACTOR, obtains a copyright to any material, whether finished or unfinished, that is developed prepared, assembled, or created pursuant to this Contract, the CONTRACTOR or its employees, as the case may be, shall own the copyright. The STATE may use the materials developed, prepared, assembled, or created pursuant to this Contract for any and all purposes, without restriction or charge. If neither the CONTRACTOR, nor any employee of the CONTRACTOR, before or by the date one year following the completion of the Contract, obtains a copyright to such material, the STATE may consider such material to be "works for hire," and in such circumstance, shall own the material and may copyright it. If the STATE owns the material or the copyright or both, the CONTRACTOR may use the material for any and all purposes without restriction or charge. The parties agree that upon the completion of this Contract they will execute a document that recites the day they agree to as the completion date and that date shall be the date of completion for the purposes of this paragraph.
4. Delete General Conditions 33. Patented Articles in its entirety and replace with the following language:

## SPECIAL CONDITIONS

33. Patented Articles. If the STATE due to no fault on its part, because of an error, oversight, or omission by the CONTRACTOR is charged with or has any action or claim brought against it for an infringement or other unauthorized or improper use of any patented article, patented process, or patented appliance received or used by the STATE under or as a result of this Contract, the CONTRACTOR shall be solely responsible for correcting or curing to the satisfaction of the STATE at no cost to the STATE any such infringement or improper or unauthorized use of which the STATE has been accused or has had a claim made or an action brought against it. Such corrections or cures may include, but are not limited to: (a) furnishing at no cost to the STATE a substitute article, process, or appliance acceptable to the STATE, (b) payment of royalties or other payments to the patent holder, (c) obtaining proper authorizations or releases from the patent holder, and (d) furnishing security to or making arrangements with the patent holder as may be necessary to correct or cure any such infringement or improper or unauthorized use.
5. The CONTRACTOR through the Principal Investigator has provided sufficient evidence that the funding request is matched 1:1 with non-State of Hawaii funds, and thus has fulfilled the budget requirement in the attached Request for Proposals. No further evidence or mention of such shall be required of the CONTRACTOR by the STATE in fulfillment of this Contract.

## GENERAL CONDITIONS

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## GENERAL CONDITIONS

1. Coordination of Services by the STATE. The "head of the purchasing agency," (which term includes the designee of the head of the purchasing agency), shall coordinate the services to be provided by the CONTRACTOR in order to complete the performance required in the Contract. The CONTRACTOR shall maintain communications with the head of the purchasing agency at all stages of the CONTRACTOR's work, and submit to the head of the purchasing agency for resolution any questions which may arise as to the performance of this Contract. "Purchasing agency" as used in these General Conditions means and includes any governmental body which is authorized under chapter 103D, HRS, or its implementing rules and procedures, or by way of delegation, to enter into contracts for the procurement of services.
2. Relationship of Parties: Independent Contractor Status and Responsibilities, Including Tax Responsibilities.
  - a. In the performance of services required under this Contract, the CONTRACTOR is an "independent contractor," with the authority and responsibility to control and direct the performance and details of the work and services required under this Contract; however, the STATE shall have a general right to inspect work in progress to determine whether, in the STATE's opinion, the services are being performed by the CONTRACTOR in compliance with this Contract. Unless otherwise provided by special condition, it is understood that the STATE does not agree to use the CONTRACTOR exclusively, and that the CONTRACTOR is free to contract to provide services to other individuals or entities while under contract with the STATE.
  - b. The CONTRACTOR and the CONTRACTOR's employees and agents are not by reason of this Contract, agents or employees of the State for any purpose, and the CONTRACTOR and the CONTRACTOR's employees and agents shall not be entitled to claim or receive from the State any vacation, sick leave, retirement, workers' compensation, unemployment insurance, or other benefits provided to state employees.
  - c. The CONTRACTOR shall be responsible for the accuracy, completeness, and adequacy of the CONTRACTOR's performance under this Contract. Furthermore, the CONTRACTOR intentionally, voluntarily, and knowingly assumes the sole and entire liability to the CONTRACTOR's employees and agents, and to any individual not a party to this Contract, for all loss, damage, or injury caused by the CONTRACTOR, or the CONTRACTOR's employees or agents in the course of their employment.
  - d. The CONTRACTOR shall be responsible for payment of all applicable federal, state, and county taxes and fees which may become due and owing by the CONTRACTOR by reason of this Contract, including but not limited to (i) income taxes, (ii) employment related fees, assessments, and taxes, and (iii) general excise taxes. The CONTRACTOR also is responsible for obtaining all licenses, permits, and certificates that may be required in order to perform this Contract.
  - e. The CONTRACTOR shall obtain a general excise tax license from the Department of Taxation, State of Hawaii, in accordance with section 237-9, HRS, and shall

- a. Recognition of a successor in interest. When in the best interest of the State, a successor in interest may be recognized in an assignment Contract in which the STATE, the CONTRACTOR and the assignee or transferee (hereinafter referred to as the "Assignee") agree that:
- (1) The Assignee assumes all of the CONTRACTOR's obligations;
  - (2) The CONTRACTOR remains liable for all obligations under this Contract but waives all rights under this Contract as against the STATE; and
  - (3) The CONTRACTOR shall continue to furnish, and the Assignee shall also furnish, all required bonds.
- b. Change of name. When the CONTRACTOR asks to change the name in which it holds this Contract with the STATE, the procurement officer of the purchasing agency (hereinafter referred to as the "Agency procurement officer") shall, upon receipt of a document acceptable or satisfactory to the Agency procurement officer indicating such change of name (for example, an amendment to the CONTRACTOR's articles of incorporation), enter into an amendment to this Contract with the CONTRACTOR to effect such a change of name. The amendment to this Contract changing the CONTRACTOR's name shall specifically indicate that no other terms and conditions of this Contract are thereby changed.
- c. Reports. All assignment Contracts and amendments to this Contract effecting changes of the CONTRACTOR's name or novations hereunder shall be reported to the CPO within thirty days of the date that the assignment Contract or amendment becomes effective.
- d. Actions affecting more than one purchasing agency. Notwithstanding the provisions of subparagraphs 6a through 6c herein, when the CONTRACTOR holds Contracts with more than one purchasing agency of the State, the assignment Contracts and the novation and change of name amendments herein authorized shall be processed only through the CPO's office.
7. Indemnification and Defense. The CONTRACTOR shall defend, indemnify, and hold harmless the State of Hawaii, the contracting agency, and their officers, employees, and agents from and against all liability, loss, damage, cost, and expense, including all attorneys' fees, and all claims, suits, and demands therefor, arising out of or resulting from the acts or omissions of the CONTRACTOR or the CONTRACTOR's employees, officers, agents, or subcontractors under this Contract. The provisions of this paragraph shall remain in full force and effect notwithstanding the expiration or early termination of this Contract.
8. Cost of Litigation. In case the STATE shall, without any fault on its part, be made a party to any litigation commenced by or against the CONTRACTOR in connection with this Contract, the CONTRACTOR shall pay all costs and expenses incurred by or imposed on the STATE, including attorneys' fees.
9. Liquidated Damages. When the CONTRACTOR is given notice of delay or nonperformance as specified in paragraph 13 (Termination for Default) and fails to cure in the time specified, it is agreed the CONTRACTOR shall pay to the STATE the amount, if

- (2) Terminate the performance covered by such order as provided in the termination for default provision or the termination for convenience provision of this Contract.
- b. Cancellation or expiration of the order. If a stop performance order issued under this section is cancelled at any time during the period specified in the order, or if the period of the order or any extension thereof expires, the CONTRACTOR shall have the right to resume performance. An appropriate adjustment shall be made in the delivery schedule or Contract price, or both, and the Contract shall be modified in writing accordingly, if:
  - (1) The stop performance order results in an increase in the time required for, or in the CONTRACTOR's cost properly allocable to, the performance of any part of this Contract; and
  - (2) The CONTRACTOR asserts a claim for such an adjustment within thirty (30) days after the end of the period of performance stoppage; provided that, if the Agency procurement officer decides that the facts justify such action, any such claim asserted may be received and acted upon at any time prior to final payment under this Contract.
- c. Termination of stopped performance. If a stop performance order is not cancelled and the performance covered by such order is terminated for default or convenience, the reasonable costs resulting from the stop performance order shall be allowable by adjustment or otherwise.
- d. Adjustment of price. Any adjustment in contract price made pursuant to this paragraph shall be determined in accordance with the price adjustment provision of this Contract.

13. Termination for Default.

- a. Default. If the CONTRACTOR refuses or fails to perform any of the provisions of this Contract with such diligence as will ensure its completion within the time specified in this Contract, or any extension thereof, otherwise fails to timely satisfy the Contract provisions, or commits any other substantial breach of this Contract, the Agency procurement officer may notify the CONTRACTOR in writing of the delay or non-performance and if not cured in ten (10) days or any longer time specified in writing by the Agency procurement officer, such officer may terminate the CONTRACTOR's right to proceed with the Contract or such part of the Contract as to which there has been delay or a failure to properly perform. In the event of termination in whole or in part the Agency procurement officer may procure similar goods or services in a manner and upon the terms deemed appropriate by the Agency procurement officer. The CONTRACTOR shall continue performance of the Contract to the extent it is not terminated and shall be liable for excess costs incurred in procuring similar goods or services.
- b. CONTRACTOR's duties. Notwithstanding termination of the Contract and subject to any directions from the Agency procurement officer, the CONTRACTOR shall take timely, reasonable, and necessary action to protect and preserve property in the possession of the CONTRACTOR in which the STATE has an interest.

termination to the CONTRACTOR specifying the part of the Contract terminated and when termination becomes effective.

- b. CONTRACTOR's obligations. The CONTRACTOR shall incur no further obligations in connection with the terminated performance and on the date(s) set in the notice of termination the CONTRACTOR will stop performance to the extent specified. The CONTRACTOR shall also terminate outstanding orders and subcontracts as they relate to the terminated performance. The CONTRACTOR shall settle the liabilities and claims arising out of the termination of subcontracts and orders connected with the terminated performance. The Agency procurement officer may direct the CONTRACTOR to assign the CONTRACTOR's right, title, and interest under terminated orders or subcontracts to the STATE. The CONTRACTOR must still complete the performance not terminated by the notice of termination and may incur obligations as necessary to do so.
- c. Right to goods and work product. The Agency procurement officer may require the CONTRACTOR to transfer title and deliver to the STATE in the manner and to the extent directed by the Agency procurement officer:
  - (1) Any completed goods or work product; and
  - (2) The partially completed goods and materials, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights (hereinafter called "manufacturing material") as the CONTRACTOR has specifically produced or specially acquired for the performance of the terminated part of this Contract.

The CONTRACTOR shall, upon direction of the Agency procurement officer, protect and preserve property in the possession of the CONTRACTOR in which the STATE has an interest. If the Agency procurement officer does not exercise this right, the CONTRACTOR shall use best efforts to sell such goods and manufacturing materials. Use of this paragraph in no way implies that the STATE has breached the Contract by exercise of the termination for convenience provision.

- d. Compensation.
  - (1) The CONTRACTOR shall submit a termination claim specifying the amounts due because of the termination for convenience together with the cost or pricing data, submitted to the extent required by subchapter 15, chapter 3-122, Procurement Rules, bearing on such claim. If the CONTRACTOR fails to file a termination claim within one year from the effective date of termination, the Agency procurement officer may pay the CONTRACTOR, if at all, an amount set in accordance with subparagraph 14d(3) below.
  - (2) The Agency procurement officer and the CONTRACTOR may agree to a settlement provided the CONTRACTOR has filed a termination claim supported by cost or pricing data submitted as required and that the settlement does not exceed the total Contract price plus settlement costs reduced by payments previously made by the STATE, the proceeds of any sales of goods and manufacturing materials under subparagraph 14c, and the Contract price of the performance not terminated.

shall not be deemed to have prejudiced any claim for additional compensation, damages, or an extension of time for completion; provided:

(1) Written notice required. The CONTRACTOR shall give written notice to the Agency procurement officer:

(A) Prior to the commencement of the performance involved, if at that time the CONTRACTOR knows of the occurrence of such action or omission;

(B) Within thirty (30) days after the CONTRACTOR knows of the occurrence of such action or omission, if the CONTRACTOR did not have such knowledge prior to the commencement of the performance; or

(C) Within such further time as may be allowed by the Agency procurement officer in writing.

(2) Notice content. This notice shall state that the CONTRACTOR regards the act or omission as a reason which may entitle the CONTRACTOR to additional compensation, damages, or an extension of time. The Agency procurement officer, upon receipt of such notice, may rescind such action, remedy such omission, or take such other steps as may be deemed advisable in the discretion of the Agency procurement officer;

(3) Basis must be explained. The notice required by subparagraph 15a(1) describes as clearly as practicable at the time the reasons why the CONTRACTOR believes that additional compensation, damages, or an extension of time may be remedies to which the CONTRACTOR is entitled; and

(4) Claim must be justified. The CONTRACTOR must maintain and, upon request, make available to the Agency procurement officer within a reasonable time, detailed records to the extent practicable, and other documentation and evidence satisfactory to the STATE, justifying the claimed additional costs or an extension of time in connection with such changes.

b. CONTRACTOR not excused. Nothing herein contained, however, shall excuse the CONTRACTOR from compliance with any rules or laws precluding any state officers and CONTRACTOR from acting in collusion or bad faith in issuing or performing change orders which are clearly not within the scope of the Contract.

c. Price adjustment. Any adjustment in the price made pursuant to this paragraph shall be determined in accordance with the price adjustment provision of this Contract.

16. Costs and Expenses. Any reimbursement due the CONTRACTOR for per diem and transportation expenses under this Contract shall be subject to chapter 3-123 (Cost Principles) of the Procurement Rules and the following guidelines:

made by written amendment to this Contract, signed by the CONTRACTOR and the STATE, provided that change orders shall be made in accordance with paragraph 20 herein.

- b. No oral modification. No oral modification, alteration, amendment, change, or extension of any term, provision or condition of this Contract shall be permitted.
- c. Agency procurement officer. By written order, at any time, and without notice to any surety, the Agency procurement officer may, unilaterally, order of the CONTRACTOR:

- (A) Changes in the work within the scope of the Contract; and

- (B) Changes in the time of performance of the Contract that do not alter the scope of the Contract work.

- d. Adjustments of price or time for performance. If any modification increases or decreases the CONTRACTOR's cost of, or the time required for, performance of any part of the work under this Contract, an adjustment shall be made and this Contract modified in writing accordingly. Any adjustment in Contract price made pursuant to this clause shall be determined, where applicable, in accordance with the price adjustment clause of this Contract or as negotiated.
- e. Claim barred after final payment. No claim by the CONTRACTOR for an adjustment hereunder shall be allowed if written Contract of modification is not made prior to final payment under this Contract.
- f. Claims not barred. In the absence of a Contract modification, nothing in this clause shall be deemed to restrict the CONTRACTOR's right to pursue a claim under this Contract or for a breach of contract.
- g. CPO approval. If this is a professional services Contract awarded pursuant to section 103D-303 or 103D-304, HRS, any modification, alteration, amendment, change, or extension of any term, provision, or condition of this Contract which increases the amount payable to the CONTRACTOR by at least \$25,000.00 or ten per cent (10%) of the initial Contract price, whichever increase is higher, must receive the prior approval of the CPO.
- h. Tax clearance. The STATE may, at its discretion, require the CONTRACTOR to submit to the STATE, prior to the STATE's approval of any modification, alteration, amendment, change, or extension of any term, provision, or condition of this Contract, a tax clearance from the Director of Taxation, State of Hawaii, showing that all delinquent taxes, if any, levied or accrued under state law against the CONTRACTOR have been paid.
- i. Sole source Contracts. Amendments to sole source Contracts that would change the original scope of the contract may only be made with the approval of the CPO. Annual renewal of a sole source Contract for services should not be submitted as an amendment.

- 20. Change Order. The Agency procurement officer may, by a written order signed only by the STATE, at any time, and without notice to any surety, and subject to all appropriate

- (5) In the absence of agreement between the parties, by a unilateral determination by the Agency procurement officer of the costs attributable to the event or situation covered by the provision, plus appropriate profit or fee, all as computed by the Agency procurement officer in accordance with generally accepted accounting principles and applicable sections of chapters 3-123 and 3-126 of the Procurement Rules.
- b. Submission of cost or pricing data. The CONTRACTOR shall provide cost or pricing data for any price adjustments subject to the provisions of subchapter 15, chapter 3-122 of the Procurement Rules.
22. Variation in Quantity for Definite Quantity Contracts. Upon the agreement of the STATE and the CONTRACTOR, the quantity of goods or services, or both, if a definite quantity is specified in this Contract, may be increased by a maximum of ten per cent (10%); provided the unit prices will remain the same except for any price adjustments otherwise applicable; and the procurement officer makes a written determination that such an increase will either be more economical than awarding another Contract or that it would not be practical to award another Contract.
23. Changes in Cost-Reimbursement Contract. If this Contract is a cost-reimbursement Contract, the following provisions shall apply:
- a. The Agency procurement officer may at any time by written order, and without notice to the sureties, if any, make changes within the general scope of the Contract in any one or more of the following:
- (1) Description of performance (Attachment 1);
  - (2) Time of performance (i.e., hours of the day, days of the week, etc.);
  - (3) Place of performance of services;
  - (4) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for the STATE in accordance with the drawings, designs, or specifications;
  - (5) Method of shipment or packing of supplies; or
  - (6) Place of delivery.
- b. If any change causes an increase or decrease in the estimated cost of, or the time required for performance of, any part of the performance under this Contract, whether or not changed by the order, or otherwise affects any other terms and conditions of this Contract, the Agency procurement officer shall make an equitable adjustment in the (1) estimated cost, delivery or completion schedule, or both; (2) amount of any fixed fee; and (3) other affected terms and shall modify the Contract accordingly.
- c. The CONTRACTOR must assert the CONTRACTOR's rights to an adjustment under this provision within thirty (30) days from the day of receipt of the written order. However, if the Agency procurement officer decides that the facts justify it,

29. Cost or Pricing Data. Cost or pricing data must be submitted to the Agency purchasing officer and timely certified as accurate for contracts over \$100,000 unless the contract is for a multiple-term or as otherwise specified by the procurement officer. Unless otherwise required by the Agency procurement officer, cost or pricing data submission is not required for Contracts awarded pursuant to competitive sealed bid procedures.

If certified cost or pricing data are subsequently found to have been inaccurate, incomplete, or noncurrent as of the date stated in the certificate, the STATE is entitled to an adjustment of the contract price, including profit or fee, to exclude any significant sum by which the price, including profit or fee, was increased because of the defective data. It is presumed that overstated cost or pricing data increased the contract price in the amount of the defect plus related overhead and profit or fee. Therefore, unless there is a clear indication that the defective data was not used or relied upon, the price will be reduced in such amount.

30. Audit of Cost or Pricing Data. When cost or pricing principles are applicable, the STATE may require an audit of cost or pricing data.
31. Records Retention. The CONTRACTOR and any subcontractors shall maintain the books and records that relate to the Contract and any cost or pricing data for three (3) years from the date of final payment under the Contract.
32. Antitrust Claims. The STATE and the CONTRACTOR recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the purchaser. Therefore, the CONTRACTOR hereby assigns to STATE any and all claims for overcharges as to goods and materials purchased in connection with this Contract, except as to overcharges which result from violations commencing after the price is established under this Contract and which are not passed on to the STATE under an escalation clause.
33. Patented Articles. The CONTRACTOR shall defend, indemnify, and hold harmless the State of Hawaii, the contracting agency, and their officers, employees, and agents from and against all liability, loss, damage, cost, and expense, including all attorneys' fees, and all claims, suits, and demands arising out of or resulting from any claims, demands, or actions by the patent holder for infringement or other improper or unauthorized use of any patented article, patented process, or patented appliance in connection with this Contract. The CONTRACTOR shall be solely responsible for correcting or curing to the satisfaction of the STATE any such infringement or improper or unauthorized use, including, without limitation: (a) furnishing at no cost to the STATE a substitute article, process, or appliance acceptable to the STATE, (b) paying royalties or other required payments to the patent holder, (c) obtaining proper authorizations or releases from the patent holder, and (d) furnishing such security to or making such arrangements with the patent holder as may be necessary to correct or cure any such infringement or improper or unauthorized use.
34. Governing Law. The validity of this Contract and any of its terms or provisions, as well as the rights and duties of the parties to this Contract, shall be governed by the laws of the State of Hawaii. Any action at law or in equity to enforce or interpret the provisions of this Contract shall be brought in a state court of competent jurisdiction in Honolulu, Hawaii.



HISC RT 002  
**HAWAII INVASIVE SPECIES COUNCIL**  
RESEARCH AND TECHNOLOGY PROGRAM

**REQUEST FOR PROPOSALS**

PROPOSALS DUE: NOVEMBER 3, 2004; JANUARY 3, 2005 AND APRIL 4, 2005.

The primary purpose of the program is to initiate and support research services that will result in improved management or control strategies for alien invasive species in Hawai'i.

***Program Goals***

- Encourage researchers to address the problems created by alien invasive species.
- Encourage the implementation of new technology to prevent the establishment or the control of invasive species
- Develop effective, science-based management approaches to control alien invasive species.
- Effectively communicate the results of research to the field where it can be applied.
- Promote interagency collaboration and stimulate new partnerships.

***General Research Priorities***

The Hawaii Invasive Species Council seeks to promote effective control and management of alien invasive species using the best available scientific information. Research proposals that address clear links between management and research or the effective application of new technology will be given first priority.

***Proposal Guidelines***

- a. Contact Information Cover Sheet
- b. Proposal using the following format (five page maximum, 12 point font, 1 inch margins)
  - Problem statement
  - Methodology or approach
  - Schedule of activities
  - Description of deliverable products
  - Personnel and Partners
  - Budget

**Cover Sheet:**

Provide contact information via U.S. postal service, e-mail and fax for the principle investigator of the proposal. The cover sheet should also have the title of the proposal and the total amount requested.

**Problem Statement:**

Briefly describe the significance of the problem, as well as the manner in which the proposed work will make a contribution to solving or understanding the problem. The problem statement should describe how new technology will be applied to address invasive species or how the scientific question will affect the development of improved management practices or understanding of an issue relating to Hawaii's invasive species. Provide a brief review of past and current research relevant to the problem.

**Methodology or Approach:**

Describe the objectives, approach, and methodology used in the proposed project.

**Schedule of Activities:**

Provide an activities timetable, including start date and project completion date. Project completion date must include the completion of deliverable products.

**Description of Deliverable Products:**

Describe deliverable product and how the project will effectively communicate the results of the research.

**Personnel and Partners:**

Indicate who will carry out the research, as well as a brief statement of the investigator(s)' qualifications and experience with regard to the proposed work. Include a CV for the principle investigator.

**Budget:**

Clearly delineate costs to be met by HISC and those to be provided by other sources. Funds must be matched 1:1 with non-State of Hawaii funds. In-kind resources will be considered.

***Grant Size***

We reserve the right to fund a proposal at an amount lower than requested.

***Project Selection & Criteria***

Proposals will be reviewed by an advisory panel representing resource managers and the scientific community. In addition to supporting research that will lead to improved management strategies, it is the intent of the program to support research of the highest quality. The criteria to be used in evaluating proposed projects include: 1) relevance to Hawaii's invasive species issues; 2) clearly developed hypotheses and methods; 3) utility of research results; 4) applicability of results; and 5) how the results will be communicated.

***Schedule***

Proposals due:	November 3, 2004	January 3, 2005	March 3, 2005
Notification of award or denial:	January 2005	March 2005	May 2005
Progress report due:	May 2005	July 2005	September 2005

***Inquiries***

Please direct inquiries to

Mindy Wilkinson, Ph.D.  
Invasive Species Coordinator  
Phone (808) 587-0164 Fax (808) 587-0160  
Mindy.M.Wilkinson@hawaii.gov

The **original proposal and 5 copies** should be sent to:

Mindy Wilkinson, Ph.D.  
Invasive Species Coordinator  
Hawaii Department of Land and Natural Resources  
Division of Forestry and Wildlife  
1151 Punchbowl Street, Room 325  
Honolulu, HI 96813

**NEW PROPOSAL**

to

**STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
DIVISION OF FORESTRY AND WILDLIFE**

from

**UNIVERSITY OF HAWAII AT MANOA**

Office of Research Services  
Sakamaki Hall D200 Dole Street  
Honolulu, HI 96822

**Pacific Cooperative Studies Unit  
University of Hawai'i at Manoa**

**Quarantine Testing of an Insect for Biocontrol of *Tibouchina herbacea***

TOTAL BUDGET \$ 28, 075

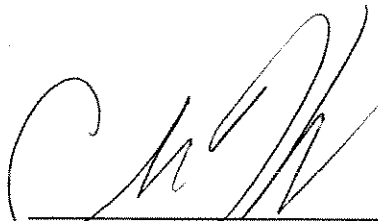
1<sup>st</sup> July 2005 – 30 September 2006



Dr. David C. Duffy  
Professor of Botany  
Director PCSU/UH

6/11/05

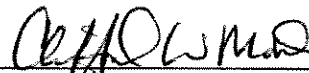
Date



Dr. Charles Hayes  
Interim Dean, Natural Sciences  
College of Arts and Sciences

6/8/05

Date



Dr. Gerry Carr  
Professor of Botany  
And Chair,  
Botany Department

Date



Kevin Hanaoka  
Director  
Office of Research Services

6/13/05

Date

**Quarantine testing of new insect**

Salary	technician	18515
Benefits	technician	5555
Services	Diagnostic Screening	1000
Supplies		79
PCSU Direct Charge (5%)		1337
Subtotal		26486
Indirect (6%)		\$ 1,589
Total		\$ 28,075

### Background and Rationale

Since first being detected in the 1970's, *Tibouchina herbacea* (DC.) Cogn. (glorybush or cane ti) has rapidly expanded its range in wet areas of the Hawaiian Islands. It is increasingly visible as a weed of roadsides, pastures and old fields, but it also invades native forests (Almasi 2000). Native to southern Brazil, *T. herbacea* is established on Hawaii, Maui and Lanai, ranging from 200 to 1200 m in elevation. The plant can spread vegetatively from broken stems and produces prolific numbers of tiny, easily dispersed seeds. Ecological studies on Hawaii and Maui indicate that *T. herbacea* can invade native forests even without facilitating disturbances such as pig activity (Almasi 2000). All species in the genus *Tibouchina* have been declared noxious weeds by the state of Hawaii (Hawaii Department of Agriculture 1992). Managers of infested forests on Maui found *T. herbacea* to be too widespread for effective chemical or mechanical control, and began supporting development of biological control (Burkhart 1994). Classical biological control of weeds is the deliberate introduction of exotic herbivores and pathogens to reduce population density of an alien weed, and entails exploration in the weed's native range, evaluation of prospective agents for specificity and efficacy against the target weed, and release and monitoring of agents that meet regulatory approval (Huffaker and Messenger 1976).

Collaborators in southern Brazil began surveys of insects of *Tibouchina herbacea* in the late 1990s, following up on an exploratory trip in 1994 by HDOA entomologist Robert Burkhart. These studies have identified several potential biocontrol agents, two of which have been studied in detail during the last three years. The beetle *Syphraea uberabensis* (Coleoptera: Chrysomelidae) is the best of these potential agents because it appears to be host-specific and causes substantial damage to plants. This beetle is found year-round in association with *T. herbacea* and its close relatives, and has never been observed to feed on nearby unrelated plants. Feeding by caged larvae and adults has been demonstrated to kill plants in field tests in Brazil (Wikler unpublished data). Chrysomelid beetles have a good track record in weed biocontrol. Also, because there are so few members of this family in Hawaii, we expect that *Syphraea* is unlikely to be attacked by parasites and predators here.

Collaborators in Brazil have developed methods for rearing *Syphraea* successfully in the lab. The life cycle takes 5-6 weeks under optimal conditions. The insects remain active even in winter, although populations decline, as temperatures in the native range can reach freezing. We are now preparing to import this insect to quarantine in Hawaii, where we will test its specificity for the target weed to ensure that it poses minimal risk to other plants in Hawaii. Probability is very high that *Syphraea* will prove to be sufficiently host-specific, since *T. herbacea*'s closest relatives in Hawaii are all non-native and generally weedy. Our recently renovated quarantine provides ample space and excellent conditions for rearing insects. The only barrier to developing this very promising biocontrol agent is lack of personnel to assist with quarantine research. The work of maintaining a vigorous insect colony on potted host plants and conducting replicated tests with larvae and adults is labor intensive. We anticipate that with the dedication of one full-time technician, host-specificity tests can be completed in one year.

### Work Plan

Objective: Obtain host specificity data and prepare petition to release *Syphraea uberabensis* in Hawaii for biocontrol of *Tibouchina herbacea*.

Permits for shipping live *Syphraea* from Brazil are almost complete. When insects arrive at the Hawaii Volcanoes National Park Quarantine Facility, we will begin rearing a colony on potted *T.*

*herbacea* (already under propagation). We expect to be able to rear *Syphraea* continuously with a generation time of approximately 6 weeks. Our colony will be carefully screened to eliminate parasitic and pathogenic hitch-hikers from Brazil. Availability of insects from Brazil may be low during the southern winter, so we plan to initiate host plant testing in November when populations rebound in Brazil and large numbers of insects will be available for shipment. Test plants, selected according to phylogenetic relation to *T. herbacea* (Wapshere 1974, Pemberton 2000) include a variety of close relatives (introduced Melastomataceae) and more distant relatives (native and introduced Myrtales, see attached list). All of these plants are already being propagated in pots. Developmental host range will be evaluated by exposing first and third instar larvae to non-target plants and *T. herbacea* controls in no-choice (starvation) tests, and scoring insect survival and damage to plants. Adult preference for feeding and egg-laying will be tested under choice (*T. herbacea* present) and no-choice (*T. herbacea* absent) situations. All tests will be replicated a minimum of four times. Data from quarantine tests will be summarized and combined with results of biological studies completed in Brazil in a petition for release.

#### Schedule of activities

Month	Activity
July 2005	First shipment of <i>Syphraea</i> from Brazil
Jul-Dec	Increase colony size
Oct	Hire technician (project start)
Oct-Nov	Inventory test plants, acquire additional plants as needed
Oct-Feb 2006	Additional shipments of <i>Syphraea</i> and pathogen screening
Nov-Jul 2006	Larval feeding tests
Jan-Aug 2006	Adult feeding and oviposition tests
Jul-Sep 2006	Write petition (project completion)

#### Deliverables

Data on host specificity of *Syphraea uberabensis* will be incorporated into a formal petition for release to be submitted to the Hawaii Department of Agriculture and USDA-APHIS within one month of completion of tests in quarantine (estimated Oct 2006). Progress and results will also be communicated to US Fish and Wildlife Service colleagues in Honolulu. Review and final approval is expected to take 1-2 years from the date of petition, during which time *Syphraea* will be reared in the Volcano quarantine by Forest Service personnel pending ultimate field release.

Host specificity and other biological data will also be submitted for publication in a peer reviewed journal such as Biological Control.

#### Personnel and Partners

Work will be conducted at the Hawaii Volcanoes National Park Quarantine Facility by a biological technician. The technician will be responsible for collection, propagation and maintenance of test plants; insect rearing; set-up, maintenance and scoring of host tests in quarantine; and data entry; and will assist in analysis and writing. Work will be directed by Tracy Johnson (Research Entomologist, US Forest Service), who will be responsible for coordination with Brazilian researchers, experimental design, data analysis and write-up (time commitment: 25%). Dr. Johnson has overseen foreign and Hawaii-based development and evaluation of insects for biocontrol of Hawaiian forest weeds over the past four years, and has 20 years of research experience in insect-plant interactions. Forest Service technician Wendell Sato will be available to assist on a part-time basis as needed.

The Hawaii Volcanoes National Park Quarantine Facility is managed by the US Forest Service in partnership with the National Park Service and other federal and state agencies. This USDA certified quarantine consists of a 450 sq ft room suitable for growing plants under natural light and an attached laboratory equipped with environmental growth chambers. The quarantine facility includes autoclave, rearing cages, microscopes, and other equipment necessary to perform the research. Test plants will be maintained in nurseries at Forest Service facilities in Volcano and Hilo. Simultaneously with this project, we plan to be rearing and testing at least two other insect agents (for biocontrol of *Psidium cattleianum* and *Miconia calvescens*). We have ample space and funding for support of these projects, allowing us to avoid any interference with our work with *Syphraea*.

Charles Wikler, a forest entomologist and biocontrol specialist at the Universidade Estadual Centro-Oeste in Irati, Brazil will provide us with *Syphraea*, shipped under permits from government of Brazil and USDA-APHIS. *Syphraea* will come from lab-reared or field-collected populations, depending on availability. Dr. Wikler and his students have provided detailed rearing methods and data from observations of *Syphraea* under field conditions in Brazil.

To screen for pathogens, *Syphraea* specimens will be sent to a pathologist, Dr. Peter Wigley, who performs similar services on behalf of Landcare Research, New Zealand.

#### Safety

The PCSU SOP will be followed, as well as those of other agencies when working in their facilities or jurisdictions.

#### Acknowledgements

The parties agree to acknowledge each other in publications and publicity resulting from this work.

#### Budget

Most of the budget will be assigned to the salary and benefits for a technician. One thousand dollars will be for diagnostic screening of insects and a small amount will be for supplies. On the basis of the agreement between UH and DLNR, PCSU will charge a 5% direct fee for administration of this award and UH's indirect charge is 6%.

#### Literature Cited

- Almasi, K.N. 2000. A non-native perennial invades a native forest. *Biological Invasions* 2: 219-230.
- Burkhart, R. 1994. Natural enemies of *Tibouchina herbacea* – Collections made in South America between December 1993 and April 1994. Hawaii Department of Agriculture.
- Hawaii Department of Agriculture. 1992. Hawaii Administrative Rules, Title 4 Department of Agriculture, Subtitle 6 Division of Plant Industry, Chapter 68 Noxious Weed Rules.
- Huffaker, C.B., and P.S. Messenger. 1976. Theory and practice of biological control. Academic Press, New York.
- Pedrosa-Macedo, J.H., C. Wikler, M.D. Vitorino, and C.W. Smith. 2000. Current researches of Brazilian weeds in Paraná state - biological control of weeds program, Curitiba, Paraná, Brazil. In *Proceedings of the X International Symposium on Biological Control of Weeds* 4-

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- Pemberton, R. W. 2000. Predictable risk to native plants in weed biological control. *Oecologia* 125:489-94.
- Wapshere, A.J. 1974. A strategy for evaluating the safety of organisms for biological weed control. *Ann Appl Biol* 77:201-211.

Proposed plant list for *Syphraea uberabensis* host specificity testing.

Order	Family	Tribe	Species
Myrtales	Melastomataceae	Tibouchineae	<i>Tibouchina herbacea</i> (DC) Cogniaux
			<i>Tibouchina longifolia</i> (Vahl) Baillon ex Cogniaux
			<i>Tibouchina urvilleana</i> (DC) Cogniaux
			<i>Heterocentron subtriplinervium</i> (Link & Otto) A. Braun & C. Bouche
			<i>Pterolepis glomerata</i> (Rottb.) Miquel
		Melastomeae	<i>Dissotis rotundifolia</i> (Sm.) Triana
			<i>Melastoma candidum</i> D. Don
		Miconieae	<i>Clidemia hirta</i> (L.) D. Don
			<i>Miconia calvescens</i> DC
			<i>Tetrazygia bicolor</i> (Mill.) Cogniaux
	Myrtaceae	Rhexieae	<i>Arthrostema ciliatum</i> Pav. ex D. Don
			<i>Metrosideros polymorpha</i> Gaud.
			<i>Eugenia uniflora</i> L.
			<i>Psidium cattleianum</i> Sabine
			<i>Syzygium sandwicensis</i> (A. Gray) Nied.
			<i>Terminalia catappa</i> L.
			<i>Lythrum maritimum</i> Kunth
			<i>Fuchsia magellanica</i> Lam.
			<i>Wikstroemia sandwicensis</i> Meisn.
Fabales	Fabaceae		<i>Acacia koa</i> A. Gray
			<i>Sophora chrysophylla</i> (Salisb.) Seem.
Sapindales	Sapindaceae		<i>Dodonaea viscosa</i> Jacq.
Lamiales	Myoporaceae		<i>Myoporum sandwicense</i> A. Gray
Polypodiales	Dicksoniaceae		<i>Cibotium glaucum</i> (Sm.) Hook. & Arnott



State of Hawaii  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Division of Forestry and Wildlife  
Honolulu, Hawaii 96813

May 13, 2005

Chairperson and Members  
Board of Land and Natural Resources  
State of Hawaii  
Honolulu, Hawaii

Land Board Members:

**SUBJECT: REQUEST FOR APPROVAL TO ENTER INTO CONTRACTS OR PURCHASING AGREEMENTS TO IMPLEMENT SEVENTEEN HAWAII INVASIVE SPECIES COUNCIL RESEARCH AND TECHNOLOGY GRANT PROGRAM PROJECTS: WITH THE UNIVERSITY OF HAWAII FOR "METHODS TO CONTROL ALIEN ALGAE"; WITH THE USDA INST. OF PAC. ISLANDS FORESTRY OR UNIVERSITY OF HAWAII FOR "THE ACCELERATION OF MICONIA BIOCONTROL"; WITH THE UNIVERSITY OF HAWAII FOR "BIOCONTROL OF SNOWFLAKE CORAL"; WITH THE USDA PAC. BASIN AG. RESEARCH CTR FOR "NETTLE CATERPILLAR PHEROMONE STUDY"; WITH THE UNIVERSITY OF HAWAII FOR "COASTAL IMPACTS OF INVASIVE ANTS"; WITH THE UNIVERSITY OF HAWAII FOR A STUDY ON THE "ECOLOGY OF SNOWFLAKE CORAL"; WITH THE UNIVERSITY OF HAWAII FOR A PILOT STUDY "DETECTION & REPORTING OF INVASIVES"; WITH THE USDA INST. OF PAC. ISLANDS FORESTRY OR UNIVERSITY OF HAWAII FOR THE "TESTING OF MICONIA BIOCONTROL"; WITH THE BISHOP MUSEUM FOR A "REPTILE & AMPHIBIAN RISK ANALYSIS"; WITH THE USDA INST. OF PAC. ISLANDS FORESTRY OR UNIVERSITY OF HAWAII FOR THE "TESTING OF TIBOUCHINA BIOCONTROL"; WITH UTAH STATE UNIVERSITY FOR A STUDY ON "ECOLOGICAL CONSEQUENCES OF COQU"; WITH THE UNIVERSITY OF HAWAII FOR A STUDY ON "CONTROL OF VEILED CHAMELEON"; WITH LEILANI NURSERY ON "THERMAL TREATMENT FOR COQU"; WITH THE HAWAII AGRICULTURE RESEARCH CENTER FOR "TWIG BORER ATTRACTANTS & REPELLENTS"; WITH THE UNIVERSITY**

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5/13/05

ITEM C-2

OF HAWAII FOR A “STUDY OF THE RED-MASKED  
CONURE”; WITH THE HAWAII DEPARTMENT OF HEALTH  
FOR A STUDY TO “MAP A NEW INVASIVE MOSQUITO”;  
WITH THE UNIVERSITY OF HAWAII FOR A STUDY ON  
“FOUNTAIN GRASS MANAGEMENT”

This Board Submittal approves contractual or purchasing agreement relationships for seventeen projects that address research and technology needs for invasive species priorities, and authorizes the Chairperson to develop and enter into contracts for these services, subject to the availability of funds and approval as to form by the Attorney General's Office.

**BACKGROUND:**

The 2003 State Legislature authorized the creation of the Hawaii Invasive Species Council and stated “the silent invasion of Hawaii by alien invasive species is the single greatest threat to Hawaii's economy, natural environment, and the health and lifestyle of Hawaii's people and visitors.” Hawaii is one of the seven states in the nation that has recognized the need for coordination among all state agencies, at a cabinet level, that have responsibility to control invasive species on the ground, as well as regulate the pathways in which invasive species can gain access into the State.

The creation of the Council (whose members are the Directors of the Departments of Land and Natural Resources (DLNR,) Agriculture (DOA,) Business, Economic Development, and Tourism (DBEDT,) Health (DOH,) Transportation (DOT) and University of Hawaii (UH,) and other Department Directors (Hawaiian Home Lands (DHHL,) Commerce and Consumer Affairs (DCCA) and Defense (DOD)) now provides the institutional framework for leadership and coordination for a statewide invasive species prevention and control program.

HISC, through the DLNR, received an administrative budget of \$4 million for the initial year to provide support for the operations of the HISC and its cooperating partners, to develop a comprehensive state-wide invasive species prevention, control, research, application of new technology, and outreach program. These funds will be matched 1:1 with non-state dollars. Of that amount, \$700,000 was budgeted for the Research and Technology Grant program. A total of 71 grant applications were received and 17 were selected for funding.

These selected seventeen Research and Technology projects (Attachments A-Q), require \$600,165 in HISC funding, and are matched with \$983,572 in non-state dollars. They are:

<u>Attachment</u>	<u>Project</u>	<u>Recipient</u>	<u>Amount</u>
A	Control of Alien Algae	University of Hawaii	\$82,980
B	Accelerate Biocontrol of <i>Miconia</i>	USDA Inst. of Pac. Islands Forestry or UH	\$78,747
C	Biocontrol of Snowflake Coral	University of Hawaii	\$52,018
D	Nettle Caterpillar Pheromone Study	USDA Pac. Basin Ag. Research Ctr	\$50,000
E	Coastal Impacts of Invasive Ants	University of Hawaii	\$47,359
F	Ecology of Snowflake Coral	University of Hawaii	\$40,534
G	Detection & Reporting of Invasives	University of Hawaii	\$37,400
H	Testing of <i>Miconia</i> Biocontrol	USDA Inst. of Pac. Islands Forestry or UH	\$37,275
I	Reptile & Amphibian Risk Analysis	Bishop Museum	\$36,250
J	Testing of <i>Tibouchina</i> Biocontrol	USDA Inst. of Pac. Islands Forestry or UH	\$28,075
K	Ecological Consequences of <i>Coqui</i>	Utah State University	\$28,800
L	Control of Veiled Chameleon	University of Hawaii	\$25,000
M	Thermal Treatment for <i>Coqui</i>	Lailani Nursery	\$22,675
N	Twig Borer Attractants & Repellents	Hawaii Agriculture Research Center	\$21,500
O	Study of the Red-Masked Conure	University of Hawaii	\$10,489
P	Mapping a New Invasive Mosquito	Hawaii Department of Health	\$2,243
Q	Fountain Grass Management	University of Hawaii	\$820

Some of the project amounts listed above are lower than were requested in their original proposals (Attachments F, K, P, and Q). The project with Hawaii Department of Health (Attachment P) will be awarded as a Cooperative Agreement. Two other projects with amounts less than \$25,000 (Attachments M and Q) will be processed with Purchase Orders instead of contracts.

### CONTRACT PROVISIONS

The Invitation for Bids for these projects was published on the State Procurement Office web site on November 3, 2004 (IFB No. HISC RT 001), November 23, 2004 (IFB No. HISC RT 002), and March 1, 2005 (IFB No. HISC RT 003).

Contracts or purchasing agreements will be negotiated with the principal investigators authorized by the recipients, to implement the projects according to their project descriptions. The standard State contract form or a contract agreement form developed specifically for the HISC awards, will be used and approved by the Attorney General's Office.

Upon approval by the Board, the Division will work with the grantee and the Attorney General's Office, to develop contract language and submit it for review and approval as to form by the Attorney General, and signature by the Chairperson.

RECOMMENDATION:

That the Board: 1) approve implementation of the HISC Research and Technology grant program for FY05; and 2) authorize the chairperson to negotiate and execute contracts subject to:

- a. Scope of Services (Contract Deliverables) as described in the attached proposals,
- b. Availability of state funds; and
- c. Approval as to form by the Attorney General's Office.

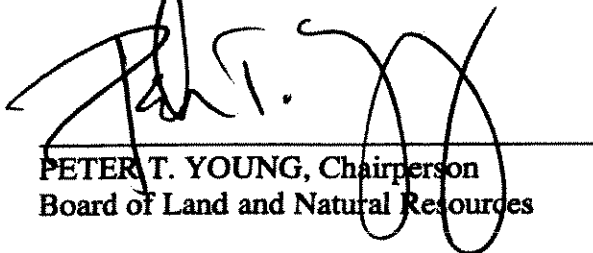
Respectfully submitted,



PAUL J. CONRY  
Administrator

Attachments (A-Q)

APPROVED FOR SUBMITTAL:

  
PETER T. YOUNG, Chairperson  
Board of Land and Natural Resources

**Proposal to Hawaii Invasive Species Council  
Research and Technology Grant Fund**

**Development of Methods to Control Alien Algae on Hawaii's Reefs**

**Research funds requested: \$82,980  
Project Period: January 1-December 31, 2005**

**P.I. Cynthia L. Hunter,  
University of Hawaii, Marine Biology  
Dean 2, 2450 Campus Road,  
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808-956-4748 tel  
808-956-4745 fax  
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**AUTHORIZING UNIVERSITY**

**OFFICIAL:**

  
Kevin Hanaoka

**DATE:** 12/02/04

Interim Director of Research Services

**ADDRESS:**

University of Hawaii  
Office of Research Services  
Sakamaki D200  
2530 Dole Street  
Honolulu, HI 96822

**Please ensure that all correspondence regarding this application and project are addressed to the Office of Research Services.**

### Problem Statement:

Hawaii's marine ecosystems support fishing and recreational activities, a tourism-based economy, and a cultural heritage. Currently, alien invasive algae present one of the most insidious threats to the health of Hawaii's coral reef ecosystems. Two mat-forming alien species, introduced in the 1970's for aquaculture research, are often unpalatable to native fish grazers, are highly invasive, and are capable of outcompeting and overgrowing corals. Without the development of an effective removal and control program, it is expected that these algae will continue to spread throughout the State, directly threatening the survival of Hawaii's coral reefs.

This proposed research will develop and test methods designed to restore key areas of coral reef and ecosystems in Hawaii. We will focus initial efforts in Kaneohe Bay where highly invasive alien seaweeds--*Gracilaria salicornia* and *Kappaphycus/Eucheuma* spp.—have spread dramatically during the past decade (Rogers and Cox, 1999; Smith et al. 2002)

Currently (October, 2004), the project stands poised to get underway within the next few weeks. Most of the necessary equipment (venturi pump, hoses, floating platform, and sorting table) has been identified, developed, and purchased. Preliminary tests of the system have been conducted at Hawaii Institute of Marine Biology. However, additional funding is needed for further testing and implementation of a full-scale, 12-month demonstration effort in Kaneohe Bay.

### Approach and Methods

The goal of this project is to assess methodologies to restore Hawaii's coral reef ecosystems through removal and control of alien invasive algae. Specific objectives include:

- a) Developing and deploying a mechanical suction system capable of removing large volumes of algal biomass from reefs while minimizing damage to other reef organisms, and quantifying the impact of this technique on the native benthic community,
- b) Experimentally examining the effectiveness of enhancing populations of native sea urchins as a means of increasing grazing pressure on invasive algae and reducing their ability to regrow following large-scale mechanical removal, and,
- c) Monitoring reefs subjected to the above treatments to determine their immediate and long-term effectiveness in controlling invasive algae.

Site Selection: Initial sites selected for algal removal will be in areas of Kaneohe Bay where blooms of the alien algae *Gracilaria salicornia* and *Kappaphycus* sp. have been documented. Sites will be selected at the margin of expanding algal blooms to help to prevent further spread of algae over new areas of coral reef. Adjacent to each removal site, an appropriate control site will be established where the same survey protocols are followed but without removal of alien algae. Mechanical algal removal will take place at a minimum of 3 sites in plots of various sizes ranging from 100m<sup>2</sup> to 10,000 m<sup>2</sup>. Additional sites will be added if person hours for mechanical removal prove sufficient.

Pre-Removal Surveys: In order to determine both the effectiveness of the mechanical removal technique and its impact on the reef environment, baseline surveys will be conducted prior to the